

APPLICATION FOR LETTERS PATENT FOR

TOILET FOR OBESE PERSONS

Inventors:

Javier Garza Lagüera Garza

Artruro Ramirez Montañana

Attorney Docket No.: 35165552.13

TOILET FOR OBESE PERSONS

BACKGROUND OF THE INVENTION

This application relates to toilets and, more particularly, to an ergonomic toilet apparatus for obese persons.

5 Difficulties associated with using a toilet are often not even considered by many people. However, there is a substantial segment of the population for which using a toilet is a difficult and daunting task. This segment of the population includes obese persons.

All over the world, the average weight of people has increased dramatically and the percentage of obese persons has increased in some countries up to 40% of the population. An 10 obese person is one who weighs over twice as much as his or her maximum recommended body weight. Such persons often weigh hundreds of pounds and existing toilets are typically not sufficiently sturdy to support such bulk. In spite of the large numbers of obese persons, the standard size of toilets has not changed to accommodate the increase in weight of the population. In most cases, domestic, commercial, and institutional facilities utilize toilets that are designed 15 particularly for use by normal-sized adults and do not take into consideration problems encountered by obese persons in their use of standard-sized toilets.

Overweight and obese persons suffer various difficulties and may be injured while attempting to utilize toilet seat apparatus that are too small for them. Initially, standard-sized 20 toilets are often dislodged from the wall or floor due to the weight of the obese user and the unusual weight distribution on the toilet and mounting system. The movement of the toilet seat in relation to the toilet bowl also results in discomfort to the obese user. Specifically, lateral displacement of the seat can result in the user being pinched between the toilet seat and toilet

bowl. Additionally, movement of the seat could compromise the integrity of the mounting system and result in the user falling to the floor.

Furthermore, the standard size of conventional toilets makes it difficult for obese persons to maintain effective sanitary conditions through use thereof because of the difficulty of 5 positioning themselves with relation to the toilet seat. Specifically, a standard-sized toilet cannot accommodate the body of an obese person and therefore does not allow the person to sit back on the toilet to allow for use in a normal manner. This often results in the necessary body parts being beyond the limits of the toilet seat and toilet bowl for sanitary use. Accordingly, it is desirable to provide an ergonomic toilet that is designed for use by obese persons.

10 It is also desirable to provide an ergonomic toilet that provides for effective and sanitary use of toilets by obese persons. It is further desirable to provide an ergonomic toilet seat assembly that is stable and provides for safe and easy use by obese persons.

SUMMARY OF THE INVENTION

The disclosed apparatus includes an oversized toilet seat to accommodate the size and weight of an obese person comfortably, a toilet bowl with a base large enough to provide stability to the apparatus no matter the position or movement of the user, and a mounting system 5 that provides adequate anchorage as not to permit the toilet to be dislodged from the floor or otherwise pulled out of its mounting system by the use of an obese person.

Other advantages of the disclosed apparatus will become apparent from the following description taken in conjunction with the accompanying drawings, which constitute a part of this specification and wherein are set forth exemplary embodiments of the present invention to 10 illustrate various objects and features thereof.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a toilet suitable for use by obese persons.

FIG. 2 is a cross-sectional view of the toilet depicted in Fig. 1 taken along axis 2.

FIG. 3 is a cross-sectional view of the toilet depicted in Fig. 1 taken along axis 3.

5 FIG. 4 is a bottom view of a toilet suitable for use by obese persons.

FIG. 5 is a bottom view of a toilet seat suitable for use by obese persons.

FIG. 6 is a front side view of a toilet seat suitable for use by obese persons.

FIG. 7 is a right side view of a toilet seat suitable for use by obese persons.

FIG. 8 is a back side view of a toilet seat suitable for use by obese persons.

10 FIG. 9 is a top view of a toilet seat suitable for use by obese persons.

FIG. 10A is a top view of a toilet suitable for use by obese persons.

FIG. 10B is another top view of a toilet suitable for use by obese persons.

FIG. 10C is yet another top view of a toilet suitable for use by obese persons.

DETAILED DESCRIPTION OF DRAWINGS

A toilet 100 suitable for use by obese persons is depicted in **FIGURE 1**. In FIG. 1, a toilet seat 105 of proportions to accommodate the size and weight of an obese person comfortably, including an aperture 110 formed by the inner rim 106 of the toilet seat 105, is 5 depicted. Although not depicted in the drawings, the toilet seat 105 is connected to a bowl portion 115 in a conventional manner. The bowl portion 115 is of substantially similar length and width as the toilet seat 105. According to one embodiment, the width of the toilet seat 105 is about 25 inches and the length of the toilet seat 105 is about 24.5 inches. The bowl portion 115 is attached to a base portion 120 in a conventional manner. According to one embodiment, the 10 bowl portion 115 and base portion 120 are part of a unitary piece. The outer rim 116 of the bowl portion 115 is substantially aligned with the outer rim 136 of the bottom 137 of the base portion 120 to provide increased stability to the toilet apparatus 100 when in use by an obese person. According to one embodiment, the base portion 120 has a width of about 21.5 inches and a 15 length of about 29.05 inches and the width of the outer rim 116 of the bowl portion 115 is about 25 inches and the length of the outer rim 116 of the bowl portion 115 is about 32 inches. The base portion 120 includes a reinforced portion (not shown in FIG. 1) comprising a plurality of ceramic walls extending from the bottom 137 of the base portion 120 to the bowl portion 115. The base portion 120 also includes a plurality of anchorage points 130, 135. According to one embodiment, the height of the toilet apparatus 100 is greater than about 17 inches and complies 20 with the standards for accessibility of the Americans with Disabilities Act.

A cross-sectional view of a toilet apparatus 200 suitable for use by obese persons comprising a base portion 220 and a bowl portion 215 is depicted in **FIGURE 2**. The substantial alignment of the outer rim 216 of the bowl portion 215 with the outer rim 236 of the bottom 237

of the base portion 220, which provides increased stability to the toilet apparatus 200 when in use by an obese person, is apparent in FIG. 2. As can further be seen in FIG. 2, the base portion 220 includes reinforced portions 225 comprising a plurality of ceramic walls extending from the bottom 237 of the base portion 220 to the bowl portion 215. The reinforced portions 225 are 5 located on opposite sides of the base portion 220. According to one embodiment, the width of the reinforced portion 225 is about 2.9 inches and the length of the reinforced portion 225 is about 2.4 inches.

Another cross-sectional view of a toilet apparatus 300 suitable for use by obese persons is depicted in **FIGURE 3**. FIG. 3 depicts another view of the base portion 320 and the bowl portion 315, including a reinforced portion 325 extending from the bottom 337 of the base portion 320 to the bowl portion 315.

A bottom 437 of a base portion 420 suitable for use with the disclosed invention is depicted in **FIGURE 4**. A plurality of anchorage points 430, 435 located on the bottom 437 of the base portion 420 are depicted in FIG. 4. The anchorage points 430, 435 prevent the toilet apparatus 400 from being dislodged from the floor when in use by an obese person. Two anchorage points 435 and two corresponding reinforced portions 425 are located on opposite sides of the base portion 420. According to one embodiment, the two anchorage points 435 are located about 8.95 inches from a line bisecting the toilet apparatus 400 into symmetrical left and right sides. It is clear from FIG. 4 that the reinforced portions 425 extend from the bottom 437 of the base portion 420 to the bowl portion 415, which allows the toilet apparatus 400 to bear 20 additional weight when in use by an obese person.

A bottom view of a toilet seat 505 suitable for use by obese persons is depicted in **FIGURE 5**. In FIG. 5, a plurality of radially disposed support members 520 are depicted. Two

vertically extending rigid members 515 are located on the left side and right side of the toilet seat 505 between the outer rim 507 and inner rim 506 of the toilet seat 505. The vertically extending rigid members 515 are positioned for alignment with an interior edge of a toilet bowl, as depicted in FIG. 1, as to prevent lateral displacement of the toilet seat 505 when in use by an obese person. An aperture 510 formed by the inner rim 506 of the toilet seat 505, which is of suitable dimensions to provide sanitary use to obese persons is depicted in FIG. 5. In one embodiment, the width of the aperture 510 is about 8.2 inches and the length of the aperture is about 16.7 inches.

A front side view of a toilet seat 605 suitable for use by obese persons is depicted in FIGURE 6. An aperture 610 formed by the inner rim 606 of the toilet seat 605 is depicted. The vertically extending rigid members 615 located on the left and right sides of the toilet seat 605 can be clearly seen in FIG. 6. As seen in FIG. 6, vertically extending rigid members 615 are positioned for alignment with an interior edge of a toilet bowl. Such alignment prevents lateral displacement of the toilet seat 605 which, in turn, provides greater stability when in use by an obese person. Specifically, movement of the toilet seat 605 could compromise the integrity of the mounting system and result in the user falling to the floor or being pinched under the toilet seat 605. The alignment of the vertically extending rigid members 615 with an interior edge of a toilet bowl prevents such movement. A plurality of radially disposed support members 620 are also depicted in FIG. 6.

A right side view of the toilet seat 705 shown in FIG. 6 is further depicted in FIGURE 7. The position and nature of the vertically extending rigid members 715 are further clarified in FIG. 7.

A back side view of the toilet seat 805 shown in FIG. 6 is further depicted in **FIGURE 8**.

The position and nature of the vertically extending rigid members 815 are further clarified in FIG. 8.

A top view a toilet seat 905 suitable for use by obese persons is depicted in **FIGURE 9**.

5 As seen in FIG. 9, the width of an aperture 910 formed by the inner rim 906 of the toilet seat 905 is less than about half the width of the toilet seat 905, which provides for greater stability and increased sanitation when in use by an obese person. Furthermore, the length of the aperture 910 formed by the inner rim 906 of the toilet seat 905 is greater than about two-thirds the length of the toilet seat 905 as seen in FIG. 9. This also provides for greater stability and increased
10 sanitation when in use by an obese person.

An average-sized person 1005 utilizing a toilet 1000 suitable for use by obese persons is depicted in **FIGURE 10A**. Although the toilet 1000 is suitable for use by obese persons, it can also be easily and comfortably used by people of average size.

15 An overweight person 1010 utilizing a toilet 1000 suitable for use by obese persons is depicted in **FIGURE 10B**.

An obese person 1015 utilizing a toilet 1000 suitable for use by obese persons is depicted in **FIGURE 10C**. As seen in FIG. 10C, an obese person can use the toilet 1000 without suffering the problems encountered when using a regular-sized toilet, such as hanging over the edges of the toilet apparatus which can cause stability, sanitation and comfort problems to the
20 user.

Changes may be made in the construction and arrangement of the parts or elements of the embodiments as described herein without departing from the spirit or scope of the invention as defined in the following claims.